

CLAIMS

1. A microwave generator (11) with a short-circuit spark gap (13) between colinearly arranged spark gap electrodes (14-15),

characterised in that

the spark gap (13) is in the form of an untriggered short-circuit switch with a pointed electrode (15) opposite an electrode (14) which is in the form of a spherical cap and by way of which there can be discharged a charge storage means (43) having a pot-shaped outer electrode (45), through the end portion (41) of which projects the pointed electrode (15), and in concentric relationship therewith an inner electrode (48) which is bulbous in a bottle shape and the end portion of which is the spherical cap-shaped electrode (14) and which is connected colinearly by way of its bottle neck-shaped reduced portion (17) to a frustoconical radiating device (18) disposed substantially outside the outer electrode (45), wherein a plurality of such microwave generators (11) are arranged in a group (10) and are electrically connected in parallel with each other with their charge storage means (43).

2. A microwave generator according to claim 1 characterised in that the inner electrode (48) adjoins the smaller base of the radiating device (18) by way of a bottle neck-shaped reduced portion (17) and extends into the region of the reduced portion (17) between the outer electrode (45).

3. A microwave generator according to claim 1 or claim 2 characterised in that various ones of the spark gaps (13) are adjusted to mutually different response behaviours.

4. A microwave generator according to one of the preceding claims characterised in that charge storage means (43) are adjusted to different capacitances.

5. A microwave generator according to one of the preceding claims characterised in that individual ones of the charge storage means (43) can be charged up inductively delayed in relation to others from a capacitor array (33).

6. A microwave generator according to one of the preceding claims characterised in that the radiating devices (18) are arranged at an internal spacing in front of a common reflector plate (50).

7. A microwave generator according to the preceding claim characterised in that individual radiating devices (18) are arranged at differing distances in front of the reflector plate (50).

8. A microwave generator according to one of the preceding claims characterised in that the pointed electrode (15) of the spark gap (13) is adjustable with respect to the curved electrode (14) through the end portion (41) of the pot-shaped outer electrode (45).

9. A microwave generator according to one of the preceding claims characterised in that the outer electrodes (45) by way of their end portions (41) and the inner electrodes (48) by way of the radiating devices (18) are structurally held to mounting brackets (46 and 47 respectively) and electrically connected in parallel with each other.